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24998 7590 12/16/2008

DICKSTEIN SHAPIRO LLP
1825 EYE STREET NW
Washington, DC 20006-5403

EXAMINER

STRIEB, MICHAEL A

ART UNIT

PAPER NUMBER

2862

DATE MAILED: 12/16/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,392

06/05/2006

Yoshihisa Minato

O3020.0375/P375

1802

TITLE OF INVENTION: OBJECT DETERMINING DEVICE AND IMAGING APPARATUS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	03/16/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

24998 7590 12/16/2008

DICKSTEIN SHAPIRO LLP
1825 EYE STREET NW
Washington, DC 20006-5403

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Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,392 06/05/2006 Yoshihisa Minato O3020.0375/P375 1802

TITLE OF INVENTION: OBJECT DETERMINING DEVICE AND IMAGING APPARATUS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1510 \$300 \$0 \$1810 03/16/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
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STRIEB, MICHAEL A 2862 396-123000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,392	06/05/2006	Yoshihisa Minato	O3020.0375/P375	1802
24998	7590	12/16/2008	EXAMINER	
DICKSTEIN SHAPIRO LLP 1825 EYE STREET NW Washington, DC 20006-5403			STRIEB, MICHAEL A	
			ART UNIT	PAPER NUMBER
			2862	
DATE MAILED: 12/16/2008				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 189 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 189 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/564,392	MINATO ET AL.	
	Examiner	Art Unit	
	MICHAEL A. STRIEB	2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant's amendment filed July 22, 2008.
2. ☒ The allowed claim(s) is/are 13,14,16-24,33,34,40 and 45-49.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>6/4/2008</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

/MICHAEL A. STRIEB/
Examiner, Art Unit 2862

/Melissa J Koval/
for Patrick J. Assouad, Examiner of Art Unit 2862

STATEMENT OF REASONS FOR ALLOWANCE

AND

EXAMINER'S AMENDMENT

Election/Restrictions

1. Applicant's election without traverse of Species I (claims 1-4, 6, 8-9, 11-22, 24, 33-34, and 39-40) in the reply filed on 2/19/2008 was acknowledged in the Office Action of April 22, 2008.

Examiner's Amendment

2. In order to better place the application in order for allowance, unelected claims 25-32 and 35-38 are hereby cancelled via examiner's amendment. Claim 23, being dependent on claim 13 or claim 14, is rejoined.

Response to Amendment

3. Applicant's amendment filed on July 22, 2008 has been entered. Claims 13-14, 16-24, 33-34, 40, and 45-49 are still pending in this application, with claims 13-14, 21-22, 33-34, 40, and 45-49 being independent. Claims 1-12, 15, 39, and 41-44 have been cancelled.

In light of Applicant's amendment filed on July 22, 2008, the objection to claim 21 in the Office Action of April 22, 2008 is withdrawn.

Allowable Subject Matter

4. Claims 13-14, 16-24, 33-34, 40, and 45-49 are allowed.

Regarding **claim 13 and subsequent dependent claims**, Bolle et al disclose an object determining device comprising a detecting part for detecting a face of a person from an input image (column 4, lines 26-44). Sannoh et al disclose a determining part for determining, when a plurality of faces of people are detected by the detecting part, a face to be focused and/or subject on which to perform exposure control when performing imaging from the plurality of faces of people based on positions of the plurality of faces of people (paragraphs 105 and 117).

However, Bolle et al in combination with Sannoh et al do not disclose a center determining portion for determining a center of the positions of the plurality of faces based on the positions of faces of people and a face determining portion for determining a target face based on the position of the center. In fact, Sannoh et al disclose a center determining portion (paragraphs 105 and 117), but it determines the face near the center of the image, rather than the center of the plurality of faces.

Regarding **claim 14 and subsequent dependent claims**, Bolle et al disclose an object determining device comprising a frame acquiring section for acquiring an image of a predetermined frame as an image to be processed from an input time-series image including a plurality of frames (column 6, lines 43-45; column 7, lines 1-9); and a detecting part for detecting a face of a person from the image to be processed (column 4, lines 17-24). Sannoh et al disclose a determining part for determining, when a

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plurality of faces of people are detected by the detecting part, a face to be focused and/or subject on which to perform exposure control when performing imaging from the plurality of faces of people based on positions of the plurality of faces of people (paragraphs 105 and 117).

However, Bolle et al in combination with Sannoh et al do not disclose a center determining portion for determining a center of the positions of the plurality of faces based on the positions of faces of people and a face determining portion for determining a target face based on the position of the center. In fact, Sannoh et al disclose a center determining portion (paragraphs 105 and 117), but it determines the face near the center of the image, rather than the center of the plurality of faces.

Regarding **claim 21 and subsequent dependent claims**, Sannoh et al disclose an object determining device comprising a detecting part for detecting a face of a person from an input image and a determining part for determining, when a plurality of faces of people are detected by the detecting section, a face of a person positioned in the middle as a face to be focused and/or subject on which to perform exposure control when performing imaging (paragraphs 105 and 117).

However, Sannoh et al do not disclose wherein the face to be focused and/or subject on which to perform exposure control is determined with the number of detected faces as a reference.

Regarding **claim 22 and subsequent dependent claims**, Bolle et al disclose an object determining device comprising a frame acquiring section for acquiring an image of a predetermined frame as an image to be processed from an input time-series image

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including a plurality of frames (column 6, lines 43-45; column 7, lines 1-9) and a detecting part for detecting a face of a person from the image to be processed (column 4, lines 17-24).

Sannoh et al disclose a determining part for determining, when a plurality of faces of people are detected by the detecting part, a face of a person positioned in the middle as the face to be focused and/or face on which to perform exposure control when performing imaging.

However, the prior art does not disclose wherein said face is to be focused and/or face on which to perform exposure control when performing imaging is determined with the number of detected faces as a reference.

Regarding **claim 33**, Bolle et al disclose a computer readable medium containing a program for an information processing device (column 3, lines 29-30; column 4, lines 38-44), said program when executed by the processing device causes the processing device to perform a method comprising the steps of detecting a face of a person from an input image (column 4, lines 26-44).

Sannoh et al disclose determining, when a plurality of faces of people are detected, a face to be focused and/or face on which to perform exposure control when performing imaging from a plurality of faces of people based on positions of the plurality of faces of people.

However, Bolle et al in combination with Sannoh et al do not disclose a center determining portion for determining a center of the positions of the plurality of faces based on the positions of faces of people and a face determining portion for determining

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a target face based on the position of the center. In fact, Sannoh et al disclose a center determining portion (paragraphs 105 and 117), but it determines the face near the center of the image, rather than the center of the plurality of faces.

Regarding **claim 34**, B Bolle et al disclose a computer readable medium containing a program for an information processing device (column 3, lines 29-30; column 4, lines 38-44), said program when executed by the processing device causes the processing device to perform a method comprising the steps of detecting a face of a person from an input image (column 4, lines 26-44).

Sannoh et al disclose determining, when a plurality of faces of people are detected, a face of a person positioned in the middle as a face to be focused and/or face on which to perform exposure control when performing imaging (paragraph 105 and 117).

However, the prior art does not disclose wherein said face is to be focused and/or face on which to perform exposure control when performing imaging is determined with the number of detected faces as a reference.

Regarding **claim 40**, Bolle et al disclose an object determining device comprising a face detecting part for detecting, from an image based on arbitrary focal point information as an image to be processed, a face of a person based on a relative value of statistics in a plurality of characteristic regions produced by contour or parts of a face of a person from the image to be processed (column 4, lines 17-25; Figure 2); and a determining part for determining a subject to be focused and/or subject on which to

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perform exposure control when performing imaging based on the face detected by the face detecting part (column 5, lines 28-31, 45-49; Figure 2).

Sannoh et al disclose wherein when a plurality of faces of people are detected by the face detecting part, the determining part determines a face of a person positioned in the middle, with the number of detected faces as a reference, as the face to be focused and/or face on which to perform exposure control when performing imaging (paragraphs 105 and 117).

However, Bolle et al in combination with Sannoh et al do not disclose wherein the face to be focused and/or subject on which to perform exposure control is determined with the number of detected faces as a reference.

Regarding **claim 45**, Bolle et al disclose an object determining device comprising a frame acquiring part for acquiring an image of a predetermined frame as an image to be processed from a time-series image including a plurality of frames imaged based on arbitrary focal point information (column 6, lines 43-45; column 7, lines 1-9); a face detecting part for detecting a face of a person based on a relative value of statistics in a plurality of characteristic regions produced by contour or parts of a face of a person from the image to be processed (column 4, lines 17-25; Figure 2); and a determining part for determining a subject to be focused and/or subject on which to perform exposure control when performing imaging based on the face detected by the face detecting part (column 5, lines 28-31, 45-49; Figure 2).

Sannoh et al disclose wherein when a plurality of faces of people are detected by the face detecting part, the determining part determines a face of a person positioned in

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the middle, with the number of detected faces as a reference, as the face to be focused and/or face on which to perform exposure control when performing imaging (paragraphs 105 and 117).

However, Bolle et al in combination with Sannoh et al do not disclose wherein the face to be focused and/or subject on which to perform exposure control is determined with the number of detected faces as a reference.

Regarding **claims 46-49**, a similar analysis may be made as for claims 14, 21, 22, and 45 above, respectively.

Conclusion

5. Any response to this office action should be faxed to (571) 273-8300 or mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand - delivered responses should be brought to:

Customer Service Window
Randolph Building
401 Dulany Street

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL A. STRIEB whose telephone number is (571)270-3528. The examiner can normally be reached on Monday-Friday 8am-5pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on (571) 272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MAS

/MELISSA J KOVAL/
for Patrick J. Assouad, Examiner of Art Unit 2862